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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,565	07/17/2003	Jun Koyama	07977-209003 / US3523D1D1	9258
26171	7590	03/31/2005	EXAMINER	
FISH & RICHARDSON P.C. 1425 K STREET, N.W. 11TH FLOOR WASHINGTON, DC 20005-3500			DUONG, KHANH B	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/620,565</p>	<p>Applicant(s)</p> <p align="center">KOYAMA ET AL.</p>	
	<p>Examiner</p> <p align="center">Khanh B. Duong</p>	<p>Art Unit</p> <p align="center">2822</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/996,357.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/17/04, 10/22/04, 11/22/04, 1/5/05, 2/9/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group II, claims 10-39 in the reply filed on January 5, 2005 is acknowledged.

Accordingly, claim 1 was cancelled.

Currently, claims 10-39 are pending in this application.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 08/996,357, filed on December 22, 1997.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: METHOD OF MANUFACTURING AN ACTIVE MATRIX DISPLAY DEVICE.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuji (U.S. Patent No. 5,491,352).

Re claim 10, Tsuji discloses in FIGs. 8 and 9 [see col. 5, line 55 to col. 6, line 17] a method of manufacturing a semiconductor device comprising: forming a first wiring (15a, 15b, 15c) over a substrate 3; forming an insulating film 4 (SiO_2) over the first wiring; forming a plurality of contact holes (occupied by metal contacts 2a) in the insulating film 4; and forming a second wiring 2 over the insulating film 4, wherein the first wiring is in contact with the second wiring 2 via the plurality of contact holes (metal contacts 2a), and wherein the first wiring extends in parallel with the second wiring 2.

Re claim 12, Tsuji discloses the first wiring comprises at least one selected from the group consisting of aluminum, polycrystalline silicon, and silicide [see col. 6, lines 2 and 3, and lines 22 and 23].

Re claim 13, Tsuji discloses in another embodiment (FIGs. 1 and 2) the second wiring 2 comprises aluminum [see col. 3, lines 22-24].

Re claim 14, the claim recites “the semiconductor device is at least one of a liquid crystal display device and an electroluminescence display device”. However, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Claims 10, 12-15, 17-20, 22-25, 27-30, 32-35 and 37-39 are rejected under 35

U.S.C. 102(b) as being anticipated by Takemura et al. (U.S. Patent No. 5,739,549).

Re claims 10, 15, 20, 25, 30 and 35, Takemura et al. ("Takemura") discloses in FIGs. 3A-3F method of manufacturing a semiconductor device (liquid crystal display) comprising: forming a first wiring (311, 312) in a "source line driving circuit" (325 or 326) on a same layer 310 as a gate electrode 312 over a substrate; forming an insulating film 316 over the first wiring (311, 312) and the gate electrode 312; forming a plurality of contact holes (occupied by second wiring 318 and 320) in the insulating film 316; and forming a second wiring (318 and 320) on a same layer 316 as a source or drain electrode 321 over the insulating film 316, wherein the first wiring (311 and 312) is in contact with the second wiring (318 and 320) via the plurality of contact holes, and wherein the first wiring (311, 312) extends in parallel with the second wiring (318 and 320).

Re claims 12, 13, 17, 18, 22, 23, 27, 28, 32, 33, 37 and 38, Takemura discloses in FIGs. 3D and 3E the first wiring (311, 312) and the second wiring (318 and 320) comprise aluminum [see col. 11, lines 36-40 and 64-67].

Re claim 14, 19, 24, 29, 34 and 39, the claim recites "the semiconductor device is at least one of a liquid crystal display device and an electroluminescence display device". However, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Re further claims 20, 25, 30 and 35, the claim recites a structure limitation "a driving circuit". However, it has been held that to be entitled to weight in method claims, the recited-

structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji in view of Yamazaki et al. (U.S. Patent No. 5,899,547).

Re claim 11, Tsuji fails to disclose the insulating film comprises an organic resin film selected from the group consisting of polyimide, polyamide, polyimideamide, and acrylic.

Yamazaki et al. ("Yamazaki") suggests using an insulating film 39 comprising an organic resin such as polyimide to provide a planar surface [see col. 10, lines 36-38].

Since Tsuji and Yamazaki are from the same field of endeavor, the purpose disclosed by Yamazaki would have been recognized in the pertinent prior art of Tsuji.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method disclosed by Tsuji as suggested by Yamazaki in order to form a planar surface.

Claims 11, 16, 21, 26, 31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemura in view of Yamazaki et al. (U.S. Patent No. 5,899,547).

Re claims 11, 16, 21, 26, 31 and 36, Takemura fails to disclose the insulating film comprises an organic resin film selected from the group consisting of polyimide, polyamide, polyimideamide, and acrylic.

Yamazaki et al. ("Yamazaki") suggests using an insulating film 39 comprising an organic resin such as polyimide to provide a planar surface [see col. 10, lines 36-38].

Since Takemura and Yamazaki are from the same field of endeavor, the purpose disclosed by Yamazaki would have been recognized in the pertinent prior art of Takemura.

Art Unit: 2822

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of Takemura as suggested by Yamazaki in order to form a planar surface.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method disclosed by Takemura as suggested by Yamazaki in order to form a planar surface.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Duong whose telephone number is (571) 272-1836. The examiner can normally be reached on 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KBD


AMIR ZARABIAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800